

**Amendments to the Claims:**

This listing of claims will replace all prior versions, and listings, of claims in the present application:

**Listing of Claims:**

Claim 1-5. (canceled).

Claim 6. (currently amended) A method for extending a redundant switching matrix without interruption, ~~which is in redundant form, of for~~ a communication system ~~without interruption~~, the switching matrix having a plurality of switching matrix assemblies via which a plurality of cell streams having ATM cells are routed ~~as stipulated by~~ according to a routing address placed in front of a cell header, the routing address taking up a prescribed memory space requirement, the method comprising the steps of:

reserving additional memory space for storing the routing address of a largest required switching matrix extension both in a header translation table and in the cell header of each ATM cell by placing at least one zero in front of the routing address;

performing a system split which is used to replace old switching matrix assemblies with new switching matrix assemblies in steps;

addressing, in the new switching matrix assemblies and insofar as the new switching matrix assemblies connect paths to a same output as the old switching matrix assemblies, the paths using the same routing addresses; and

writing the new routing addresses for the paths via the extended switching matrix to the additional memory space.

Claim 7. (previously presented) A method for extending a switching matrix of a communication system without interruption as claimed in claim 6, wherein the system split is performed by disconnecting half of the old switching matrix and replacing it with a new switching matrix half, the cell streams being routed via a remaining half of the old switching matrix, wherein the disconnected half is then started up again using the new switching matrix, as

a result of which one half of the switching matrix is operated using the new switching matrix half and the remaining half is operated using the old switching matrix, wherein the remaining half of the old switching matrix is then disconnected and replaced with another new switching matrix half via which the cell streams are routed, and wherein the remaining half is then started up again using the another new switching matrix.

Claim 8. (previously presented) A method for extending a switching matrix of a communication system without interruption as claimed in claim 6, wherein, in input-side interface devices, the cell header of each ATM cell has an internal cell header placed in front of it which is used to hold the routing addresses and is removed again in output-side interface devices.

Claim 9. (previously presented) A method for extending a switching matrix of a communication system without interruption as claimed in claim 6, wherein, in input-side interface devices, arriving cell streams are split into two separate and identical cell streams such that a first cell stream is routed via one half of the switching matrix and a second cell stream is routed via the remaining half of the switching matrix to the same output-side interface devices as stipulated by the routing address placed in front of the cell header.

Claim 10. (previously presented) A method for extending a switching matrix of a communication system without interruption as claimed in claim 6, wherein the additional memory space is reserved for the largest required switching matrix extension both in the header translation table and in the cell header of each ATM cell.